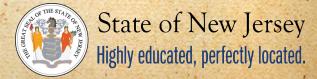


Landscape

Prepared
Winter 2012–13



Produced by the Office of Labor Planning and Analysis

of the New Jersey Department of Labor and Workforce Development

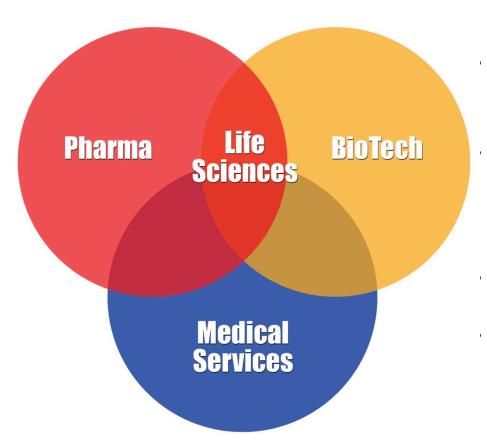


Winter 2012-13





New Jersey Bio-Pharmaceutical Life Sciences Cluster



Agenda

- Highlights of New Jersey's Bio-Pharmaceutical Life Sciences cluster
- State & regional details about New Jersey's Bio-Pharmaceutical Life Sciences cluster
- Regional economic developments
- Recent cluster developments relevant to New Jersey's Life Sciences cluster



New Jersey Bio-Pharmaceutical Life Sciences Cluster

Overview

What does the Bio-Pharmaceutical Life Sciences Cluster offer New Jersey?

Let's take a look!



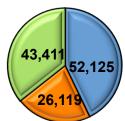


Overall State Impact

The Bio-Pharmaceutical Life Sciences cluster has had an enormous impact on growing high-quality jobs and adding significant value to the state's economic activities. Highlights in 2011 included:

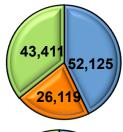
Employment

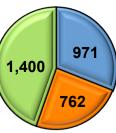
- ■Pharmaceuticals
- Medical Devices
- ■BioTech R&D



Establishments

- ■Pharmaceuticals
- Medical Devices
- ■BioTech R&D





Employment total averaged 121,655 — or 3.9 percent — of all private sector workers in the state. *Nationally, the proportion was* just 2.0 percent!

Well-paying jobs: Paid more than \$14.5 billion in annual payroll — 8.1 percent of the state's total wages.

Over the past five years (2006-2011), establishments realized an increase of 236 (+8.1%). Pharmaceuticals led the way, increasing by 14.0%.

• Investment added value: Industry R&D was \$18.4 billion, the second highest among the 50 states. (2009)

- * Added to export opportunities: New Jersey exported approximately \$4.8 billion in manufactured goods worldwide in 2011.
- * Added to growing the state's economy: This cluster accounted for \$23 billion (nearly 5.0%) of New Jersey's gross domestic product. (Source: Rutgers, 2009)

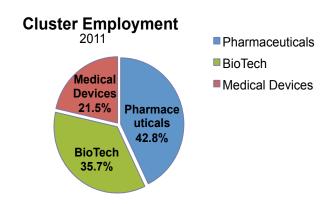




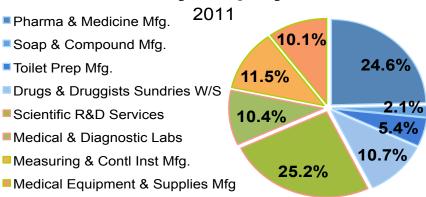
Industry Details
of
New Jersey's
Bio-Pharmaceutical
Life Sciences
Cluster



Statewide Employment

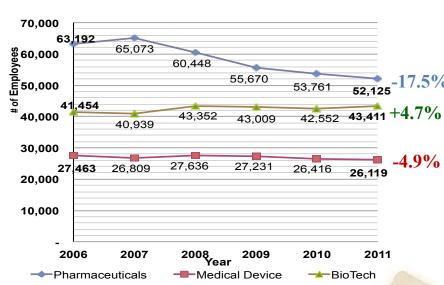


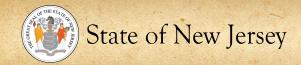
Industry Employment



New Jersey had an average of 121,655 employees in this cluster in 2011. The cluster lost 7.9 percent employment over the 5-year period 2006-2011.

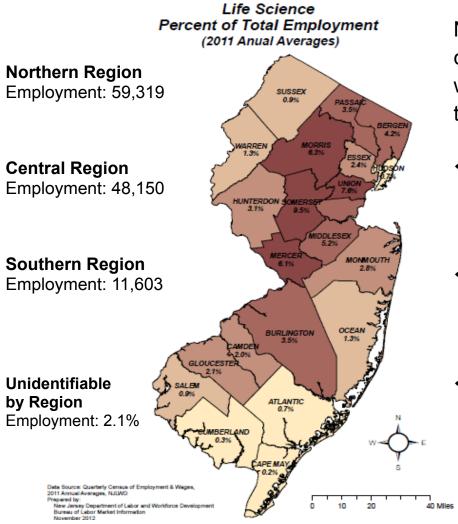
5-Year Employment Trend 2006 - 2011







Concentration of Employment

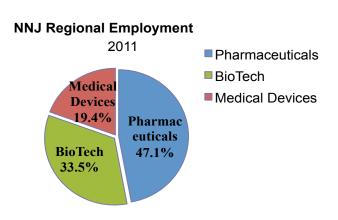


New Jersey's Bio-Pharmaceutical Life Sciences cluster employed an average of 121,655 workers in 2011. The breakdown of this highly talented workforce *by region* was as follows:

- Northern NJ accounted for 48.8 percent of Life Sciences employment with the largest share working in Pharmaceuticals (47.1%).
- Central NJ accounted for 39.6 percent of Life Sciences employment with the largest share working in BioTech (42.8%).
- Southern NJ accounted for 9.5 percent of Life Sciences employment with the largest share working in Medical Devices (63.3%).

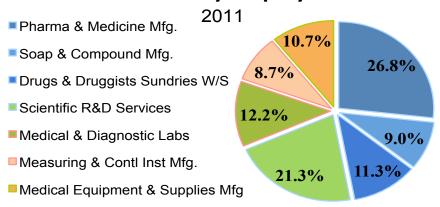


Northern NJ Regional Employment

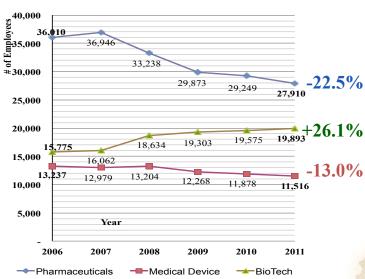


Over 59,300 workers were employed in this cluster in Northern New Jersey in 2011. The cluster's employment in this region declined by 8.8 percent over the 5-year period 2006–2011.

NNJ Industry Employment



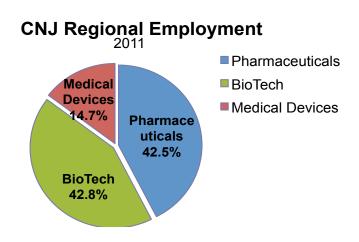
5-Year Employment Trend





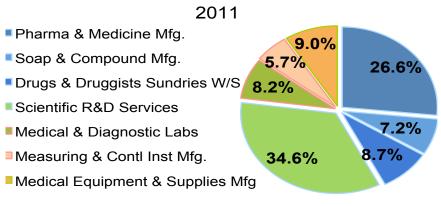


Central NJ Regional Employment

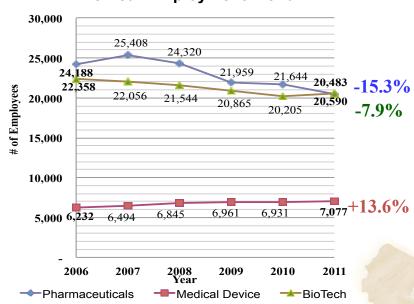


An average of 48,150 workers were employed in this cluster in Central New Jersey in 2011. Within this region, this cluster's employment declined by 8.8 percent over the 5-year period 2006–2011.

CNJ Industry Group Employment



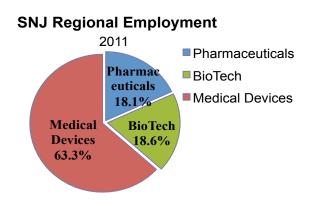
5-Year Employment Trend





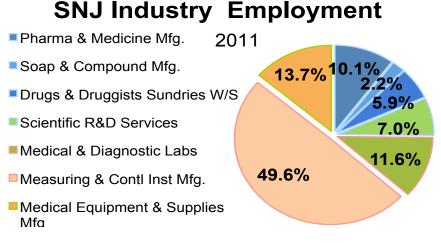


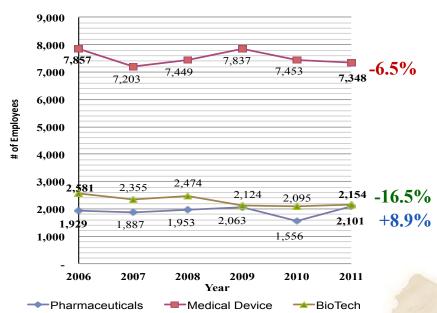
Southern NJ Regional Employment



Over 11,600 workers were employed in this cluster in Southern New Jersey in 2011. This cluster's average employment in this region declined by 6.2 percent over the 5-year period 2006–2011.

5-Year Employment Trend



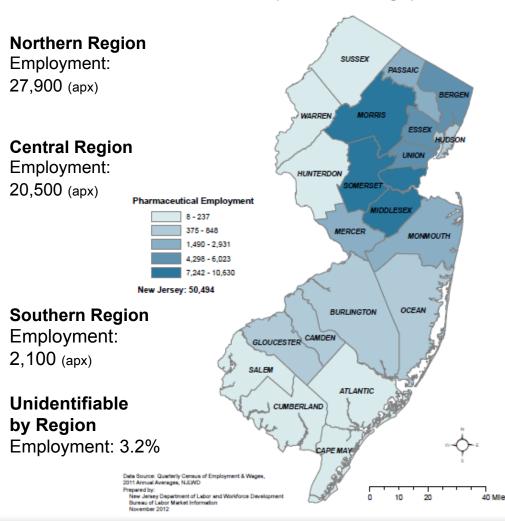






Concentration of Pharmaceutical Employment





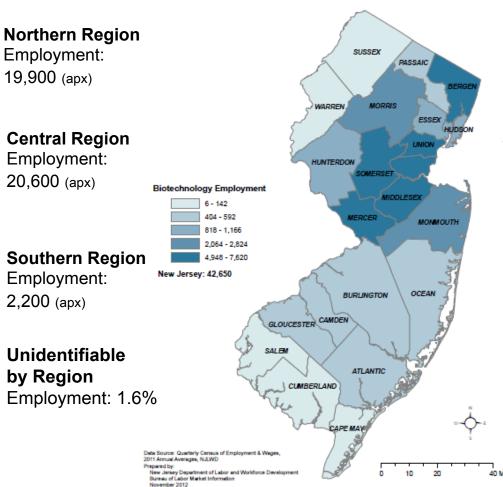
New Jersey's Pharmaceutical employment averaged 52,125 in 2011.

The breakdown *by region* was as follows:

- ❖ Northern accounted for 53.5%.
- ❖ Central accounted for 39.3%.
- **❖ Southern** accounted for 4.0%.

Concentration of Biotechnology Employment





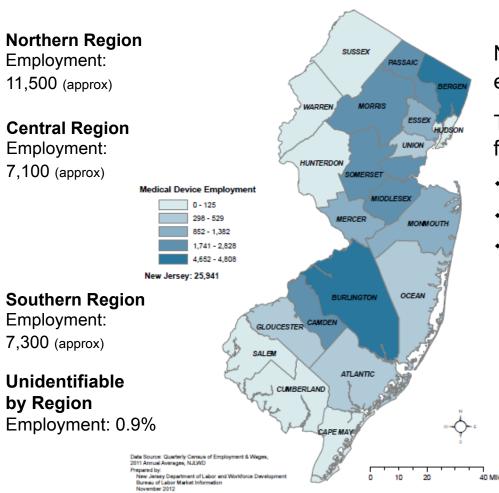
New Jersey's Biotechnology employment averaged 43,411 in 2011.

The breakdown by region was as follows:

- ❖ Northern accounted for 45.8%.
- ❖ Central accounted for 47.5%.
- **❖ Southern** accounted for 5.1%.

Concentration of Medical Device Employment

Medical Device Employment - New Jersey Counties (2011 Annual Averages)



New Jersey's Medical Device employment averaged 26,119 in 2011.

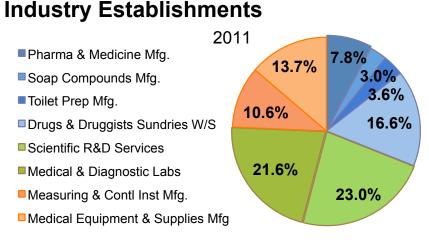
The breakdown *by region* was as follows:

- Northern accounted for 44.0%
- ❖ Central accounted for 27.2%
- ❖ **Southern** accounted for 27.9%

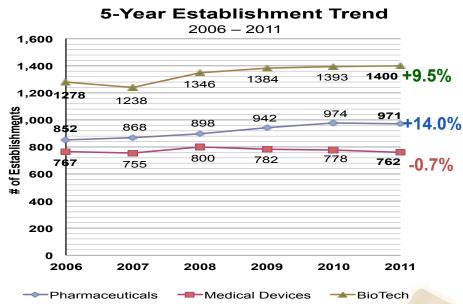
Statewide Establishments

Statewide Establishment 2011 Pharmaceuticals BioTech euticals 30.1% BioTech 44.3%

lo doctor - Establishos coto



New Jersey had an average of 3,133 establishments in this cluster in 2011. These establishments gained 8.1 percent over the 5-year period 2006–2011.







Concentration of Establishments

Northern Region Establishments:

1,358

Central Region

Establishments: 1,031

Life Science Employers

- Biotechnology
- Medical Devices
- Pharmaceutical

Southern Region

Establishments: 342

Unidentifiable by Region

Establishments: 12.9%

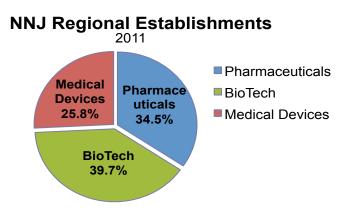
New Jersey had over 3,100 Life Science Employers establishments directly engaged in this exceptionally highly concentrated Bio-Pharmaceutical Life Sciences cluster in 2011. The establishment breakdown by region was as follows:

- **❖ Northern Region** accounts for 43.3 percent of Life Sciences led by the **Biotech** component. (39.7%)
- **❖ Central Region** accounts for 32.9 percent of Life Sciences led by the **Biotech** component. (44.3%)
- **Southern Region** accounts for 10.9 percent of Life Sciences led by the **Biotech** component. (54.7%)



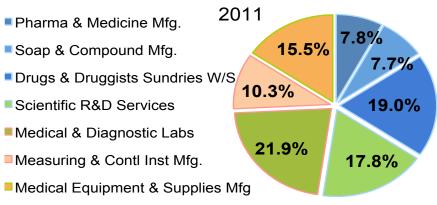


Northern NJ Regional Establishments

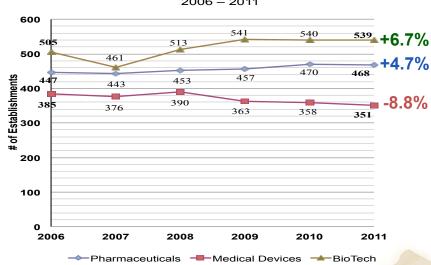


Northern New Jersey had an average of 1,358 establishments in this cluster in 2011. These establishments gained 1.6 percent over the 5-year period 2006–2011.

NNJ Industry Establishments



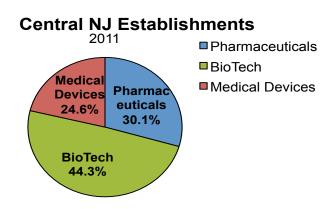
5-Year Establishment Trend 2006 – 2011



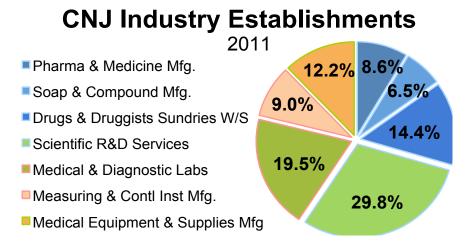


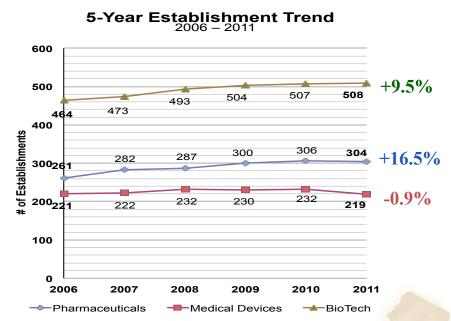


Central NJ Regional Establishments



Central New Jersey averaged 1,031 establishments in this cluster in 2011. These establishments gained 9.0 percent over the 5-year period 2006–2011.



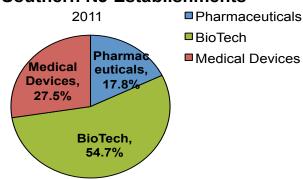






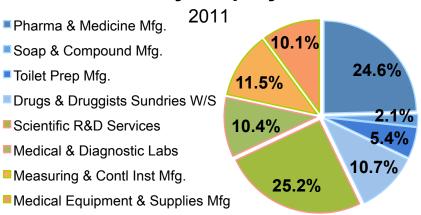
Southern NJ Regional Establishments

Southern NJ Establishments

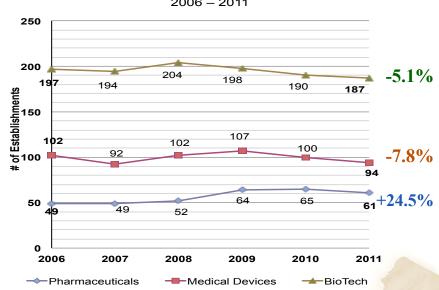


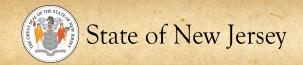
Southern NJ averaged 342 establishments in this cluster in 2011. These establishments lost 1.7 percent over the 5-year period 2006–2011.

Industry Employment



5-Year Establishment Trend

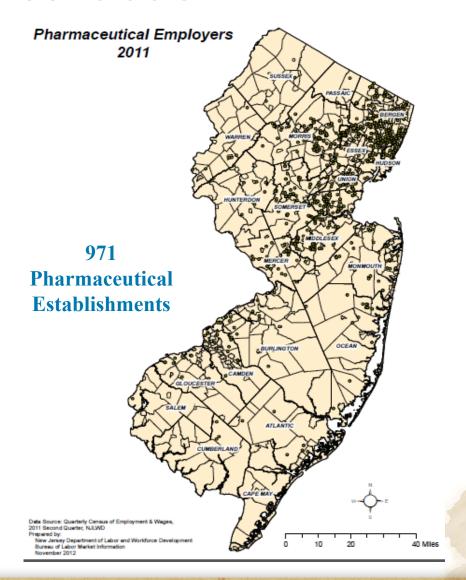






Establishment Concentration

Pharmaceutical establishments have a powerful presence in northern New Jersey, attracted by an excellent labor pool, major universities and access to all modes of terrific transportation.

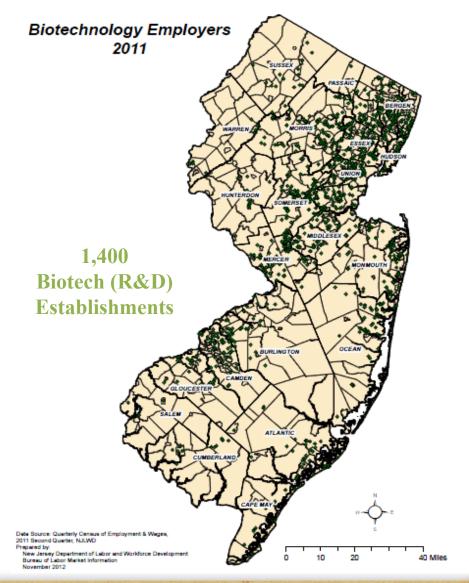






Establishment Concentration

Biotech establishments have a strong presence in New Jersey, especially in the "Einstein Alley Corridor" area. Nearby universities and incubators are a significant contributing factor.

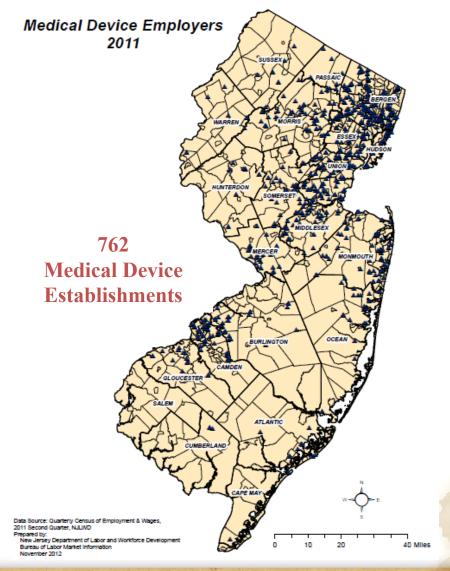


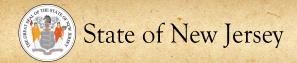




Establishment Concentration

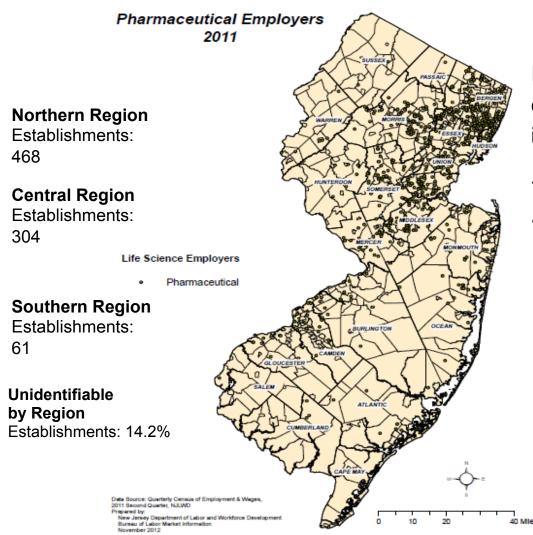
Medical Device establishments have a robust presence in New Jersey, especially in the northeastern section of the state in the heart of the manufacturing area, adjoining "Pharma" country.







Concentration of Pharmaceutical Establishments



In 2011, New Jersey averaged 971 establishments directly engaged in the pharmaceutical industries.

The establishment breakdown by region was as follows:

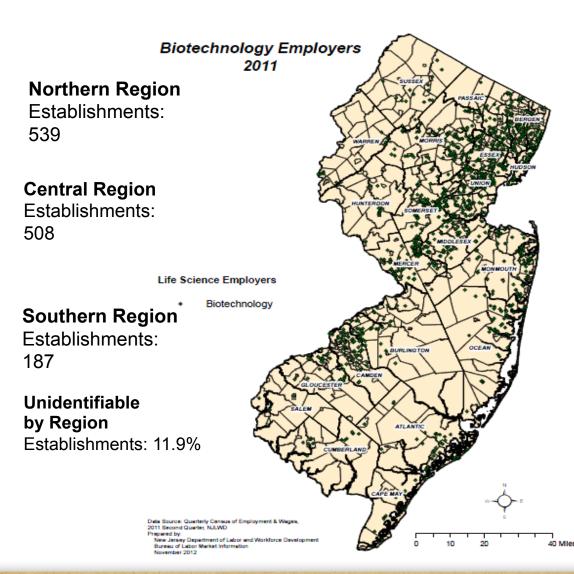
❖ Northern Region: 48.2%.

❖ Central Region: 31.3%.

❖ Southern Region: 6.3%.



Concentration of Biotechnology Establishments



In 2011, New Jersey averaged 1,400 establishments directly engaged in the biotechnology industries.

The establishment breakdown by region was as follows:

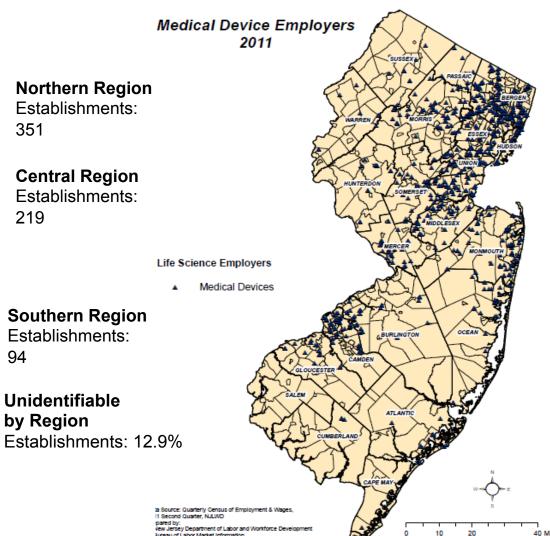
❖ Northern Region: 38.5%.

❖ Central Region: 36.3%.

❖ Southern Region: 13.3%.



Concentration of Medical Device Establishments



In 2011, New Jersey averaged 762 establishments directly engaged in the medical device industries.

The establishment breakdown by region was as follows:

❖ Northern Region: 46.1%

❖ Central Region: 28.7%

❖ Southern Region: 12.3%



Summary of Employment & Establishments

Geographic summary of Life Sciences employment & establishments in New Jersey

Employment *	2011		5-Year (2006-2011) Trend			
	Cluster		Pharmaceutical	Biotech	Medical Device	Overall Cluster
Statewide	121,655		-17.5%	4.7%	-4.9%	-7.9%
Nothern New Jersey	59,319	48.8%	-22.5%	26.1%	-13.0%	-8.8%
Central New Jersey	48,150	39.6%	-15.3%	-7.9 %	13.6%	-8.8%
Southern New Jersey	11,603	9.5%	8.9%	-16.5%	-6.5%	-6.2%
F-+	2011			5-Year (2006	-2011) Trend	
Establishments *	2011 Cluster	r	Pharmaceutical	5-Year (2006 Biotech	-2011) Trend Medical Device	Overall Cluster
Establishments * Statewide		r	Pharmaceutical 9.5%	•	•	Overall Cluster 8.1%
	Cluster 3,133	r 43.3%	9.5%	Biotech	Medical Device	
Statewide	3,133 1,358		9.5% 6.7%	Biotech 14.0%	Medical Device -0.7% -8.8%	8.1%

SOURCE: NJLWD, Quarterly Census of Employment and Wages, Annual Averages

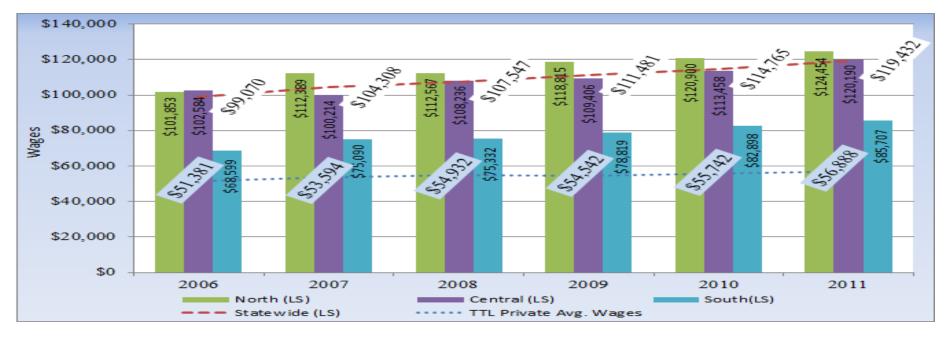
* Note: Not all data was identifiable by region. Specifically:

Employment: 0.9% Establishments: 13.1%



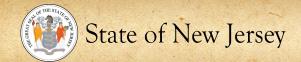


Average Annual Wages



This cluster's statewide 2011 annual average wage was \$119,432, which was 109.9 percent higher than the state's total private sector's average wages of \$56,888. The cluster's three components (*statewide*) all had wages that were significantly higher than the statewide total private average wages; Medical Device \$94,572 (66.2%), Biotech \$116,032 (104.0) and Pharmaceuticals \$134,721 (136.8%).

SOURCE: NJLWD, Quarterly Census of Employment and Wages, Annual Averages

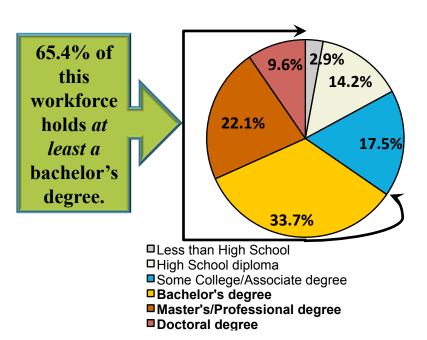




Education

Due to the high level and technical demands of many of the occupations found in this cluster, these related New Jersey employers had a tremendous need for highly well-educated workers.

Educational Breakdown (2011)



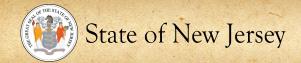
New Jersey's highly well-educated workforce is realized in this cluster as nearly *two-thirds* of its workforce holds at least a bachelor's degree.

Bachelor's: 33.7%

Master's/Professional: 22.1%

Doctorate: 9.6%

Source: 2011 American Community Survey Public Use Microdata Sample





Economic Development Projects in New Jersey's

Bio-Pharmaceutical
Life Sciences
Cluster





Northern NJ

Bio-Pharmaceutical Life Sciences Cluster

ECONOMIC DEVELOPMENT PROJECTS

Life Science Employers

ThorLabs Newton, NJ The company recently opened a

new 120,000-sq.ft.-three-story facility in Newton. In addition, it intends to expand its facility in Andover Twp.

DSM Nutritional Products

White Twp.

Capital Invt: \$200M into expansion: +160 jobs.

BASF

Florham Park, NJ **Relocation / Expansion**

Also adding its pharmaceutical supply unit here.

Merck & Co.

Summit, NJ

(Relocating from Whitehouse Station, NJ.) Involves approximately 2,000 jobs.

Also an expansion project, which includes setting up the Animal Vet. Unit in Summit.

BAE Systems

Wayne, NJ

Retention / Investment

Suzhou Pharma Svcs.

Lyndhurst, NJ

New: Contract development & manufacturing organization with new corporate headquarters.

Bayer HealthCare

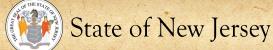
Whippany, NJ Retention/ Expansion Jobs involved: 1,500 - 2,500

Panasonic Healthcare

Newark, NJ New healthcare division to focus on the life sciences, hearing care and diagnostics.





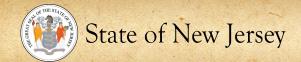


Central NJ

Bio-Pharmaceutical Life Sciences Cluster

ECONOMIC DEVELOPMENT PROJECTS

Life Science Employers lpsen Basking Ridge, NJ Allergan Bridgewater, NJ Established its new North Leased 93,000-sq.ft. of space. American headquarters Investment: \$12 million Create new jobs: 100 (apx). New Jobs: 400 (apx) Actavis, Inc. North Brunswick, NJ Invest \$4.5 million to establish a Global R&D Novo Nordisk Technology Center. About 50 new jobs to include Plainsboro, NJ scientists, chemists, engineers & support staff. **Expansion**: \$215 million project for its new 770.000-sa.ft. **SciPark** headquarters. + 100 new jobs. East Windsor, NJ **Current status**: Under construction. When completed: A guarter-million square Clinilabs feet of space intended to attract science & Eatontown, NJ technological based companies. **Expansion:** Set up new unit to provide clinical drug development services to the pharmaceutical industry. "5 percent of the [Hunterdon, Mercer, Middlesex, Monmouth & Somerset Counties] office space, **Accupac** about 6.5 million square feet, is Lakewood, NJ laboratory space and other Capital Investment: \$1.7M specialized space for **New Jobs: +300** biotechnology companies."



– NY Times, February 2, 2012.



Southern NJ

Bio-Pharmaceutical Life Sciences Cluster

ECONOMIC DEVELOPMENT PROJECTS

Rowan University

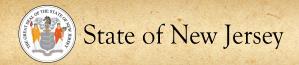
Glassboro, NJ Formed a new School of Biomedical Sciences, which operates in conjunction with the colleges of Science & Mathematics and Engineering.

The school addresses a growing need in the region for programs to prepare students for careers in healthcare-related fields, from pharmacy to biomedical engineering.

This school will contribute toward developing the educated workforce that businesses need if they are going to relocate to South Jersey.

Life Science Employers

CRI Lifetree, a company specializing in early-stage research focused in pain, human abuse liability, psychiatry, neurology and diabetes, opened a new state-of-the-art, early-stage research facility in Marlton, NJ



UPDATES Relevant to New Jersey's

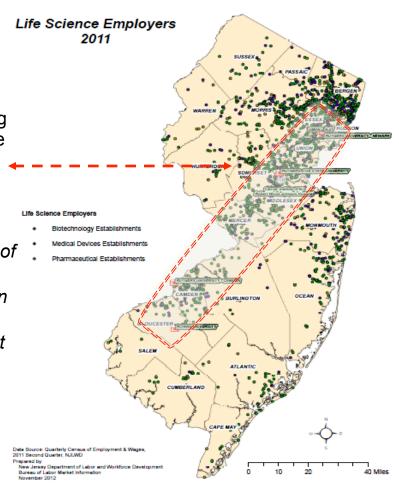
Bio-Pharmaceutical Life Sciences Cluster





UPDATES Cluster Development in New Jersey

- Changing paradigm is affecting the way these companies are making decisions involving what products and services will be researched and developed.
- Changing "cluster" business approach is having significant influence on where these companies are locating and relocating operations.
 - ➤ New Jersey has taken steps to address these changes, such as developing greater partnerships among educational institutions (e.g., Rutgers University / New Jersey Institute of Technology / Rowan University) along with promoting and supporting stronger collaboration of hospitals and other related businesses to ensure the success of the cluster's employment and business growth in the Garden State!
- New Jersey is still a key player nationally as well as globally, providing incredible value to the Bio-Pharmaceutical Life Sciences cluster.







New Jersey Department of Labor and Workforce Development

Office of Labor Planning & Analysis

http://lwd.dol.state.nj.us/labor/lpa/LMI_index.html

John Ehret, Labor Market Analyst
Office of Labor Planning & Analysis
NJ Department of Labor & Workforce Development
PO Box 057
Trenton, NJ 08625-0057

609-984-9683 john.ehret@dol.state.nj.us





